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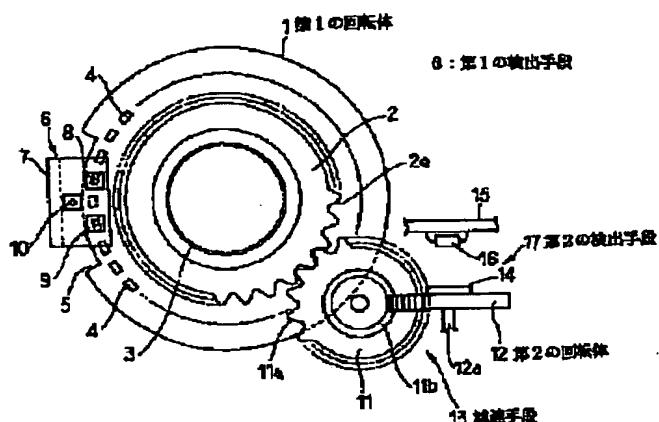
APPLICATION DATE : 01-04-98
APPLICATION NUMBER : 10088683

APPLICANT : TOKAI RIKA CO LTD;

INVENTOR : MINAMI KATSUHIRO;

INT.CL. : G01B 11/26 B62D 15/02

TITLE : STEERING SENSOR FOR VEHICLE



ABSTRACT : PROBLEM TO BE SOLVED: To detect an accurate absolute steering angle at early stages.

SOLUTION: The three sets of photointerrupters 8, 9, 10 of a first detection device 6 output signals showing respectively the amount and direction of rotation of a steering wheel and a reference position during one rotation, in accordance with the rotation of a first rotor 1 which rotates integrally with the steering wheel. A worm wheel 12 serving as a second rotor reduces the speed of rotation of the steering wheel via a gear mechanism 13 and rotates within a range of less than the one rotation. A second detection device 17 comprises a magnet 14 provided on one side of the worm wheel 12 and a magnetoresistance element 16 opposite thereto and outputs signals showing the rotary position and the absolute steering angle of the worm wheel 12. The accurate absolute steering angle can be detected at early stages in accordance with the detection signals of the first and second detection devices 6, 17.

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